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10/807,629

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Tsuyoshi Wakazono

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EXAMINER

MISLEH, JUSTIN P

ART UNIT

PAPER NUMBER

2622

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/807,629		WAKAZONO, TSUYOSHI	
	Examiner		Art Unit	
	Justin P. Misleh		2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/23/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on September 21, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the Examiner is considering the information disclosure statement.
3. However, the listing of references in the specification, on page 2 (see paragraph 005, lines 2 – 3) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, “the list may not be incorporated into the specification but must be submitted in a separate paper.” Therefore, unless the references have been cited by the Examiner on form PTO-892, they have not been considered.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the

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printer is limited. The form and legal phraseology often used in patent claims, such as “means” and “said,” should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, “The disclosure concerns,” “The disclosure defined by this invention,” “The disclosure describes,” etc.

On page 17 of the specification, the abstract (lines 1 and 2) includes the phrase “is disclosed”. In accordance with the guidelines above, the Examiner believes such language should be avoided. **Appropriate correction is required.**

5. The disclosure is objected to because of the following informalities: minor typographical error.

On page 10 (paragraph 0040, lines 1 – 3), the specification states, “in next step 109, the CPU 11 controls the zoom motor 13 to drive the zoom lens unit 2 to the wide-angle end”. The Examiner believes, as shown in figure 2, that such driving occurs in step 108 and not in step 109. Furthermore, the Examiner notes there is no step 109 identified in the drawings. **Appropriate correction is required.**

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. **Appropriate correction is required.**

Claim Objections

7. **Claim 5** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form.

The Examiner submits Claim 5 is written in such fashion to incorporate by reference all the contents of the Claim 1 – hence, Claim 5 appears to depend from Claim 1. However, Claim 5 repetitively includes the optical apparatus including the first focus lens unit which is manually operated; the second focus lens unit which is driven under auto focusing control; and the magnification-varying lens unit. For these reasons, Claim 5 is objected to as being of improper dependent form.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1 – 3, 5 and 6** are rejected under 35 U.S.C. 102(b) as being anticipated by Sakata (US 5,075,713).

10. For **Claim 1**, Sakata discloses, as shown in figures 1 – 3, a drive control apparatus (see figure 1) for an optical apparatus (40) including a first focus lens unit (front lens group 11) which is manually operated (see column 3, line 64 – column 4, line 2), a second focus lens unit (master

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lens group 13) which is driven under auto focusing control (see column 5, lines 45 – 55) and a magnification-varying lens unit (zoom lens group 12; see column 4, line 67 – column 5, line 12), comprising:

- a focus motor (stepping motor 58) which drives the second focus lens unit (master lens group 13);

- a zoom motor (motor 50) which drives the magnification-varying lens unit (zoom lens group 12); and

- a controller (microcomputer 19) which controls driving of the magnification-varying lens unit through the zoom motor (see column 5, lines 1 – 12) and operates in a first mode (“automatic mode”) carrying out the auto focusing control (see column 5, line 32 – column 6, line 13) through the focus motor (stepping motor 58) and in a second mode (“manual mode”) not carrying out the auto focusing control (see column 6, line 14 – column 7, line 20), the controller (microcomputer 19) carrying out control so as to drive (via stepping motor 58) the second focus lens unit (master lens group 13) to a first predetermined position (“held at a predetermined position”) when switching (see Examiner’s explanation below) from the first mode (“automatic”) to the second mode (“manual”),

- wherein, when switching (see Examiner’s explanation below) from the first mode (“automatic”) to the second mode (“manual”), the controller (microcomputer 19) carries out control so as to drive the magnification-varying lens unit (zoom lens group 12) to a second predetermined position (“tele-side”/“wide-side”; see figure 3, “manual mode” between “distance-to-subject” of 1.2m to 0.3m and vice-versa).

The Examiner notes the “when switching from the first mode to the second mode” portions of the above-recited claim language are written broadly enough such that, in Sakata, anytime the lens ring (30; see figure 2) is NOT positioned in the “auto mode position” (shown clearly in figure 2) is considered to correspond to “when switching from the first mode to the second mode”. In other words, the Examiner considers the actual instantaneous switch between automatic mode and manual mode and the entire duration that the apparatus is in manual mode to directly correspond to the “when switching”. The Examiner submits the claim language does not necessarily require the controller performs the required controls during the switching itself and rather additionally allows for the controller to perform the required controls both during and after the switching.

In the case of Sakata, as clearly shown in figure 3 and as stated in column 6 (lines 14 – 62), in the “manual mode”, the master lens group (13) is “held at predetermined position” when the lens ring (30) is rotated to correspond to a “distance-to-subject” between “infinity” and “0.3m”. The stepping motor (58) is responsible for movement of the master lens group (13); thus, to hold the master lens group (13) at a predetermined position, the stepping motor (58) must drive the master lens group (13) to the predetermined position.

Furthermore, also in the manual mode, the zoom lens group (12) is “moved from tele-side to wide-side base on output of potentiometer 36 as distance-to-subject decreases” (see figure 3). As stated in column 6 (lines 44 – 63), when the lens ring (30) is moved from 1.2m to 0.3m, the zoom lens group (12) is moved in accordance with the lens ring movement from a telephoto side of the total range to a wide angle side of the total range. Accordingly, if the lens ring (30) is moved in the opposite direction (e.g., 0.3m to 1.2m), the zoom lens group (12) is moved in

accordance with the lens ring movement from the wide angle side to the telephoto side. The relationship between the movement of the lens ring (30) and the movement of the zoom lens group (12) is fixed based upon the output of the potentiometer (36), which measures the movement of the lens group. Therefore, any movement of the zoom lens group (12) as a result of said relationship is predetermined and corresponds to the driving of the zoom lens group (12) to a second predetermined position, as required.

11. As for **Claim 2**, Sakata discloses, as shown in figure 3, wherein the second predetermined position is a wide-angle end.

As stated above, when the lens ring (30) is moved from a “distance-to-subject” between 1.2m and 0.3m, the zoom lens group (12) is moved to a wide-angle predetermined position based on the result of the potentiometer (36). Therefore, the second predetermined position is a wide-angle end, as claimed.

12. As for **Claim 3**, Sakata discloses, as shown in figure 3, wherein the second predetermined position is a telephoto end.

As stated above, when the lens ring (30) is moved from a “distance-to-subject” between 0.3m and 1.2m, the zoom lens group (12) is moved to a telephoto predetermined position based on the result of the potentiometer (36). Therefore, the second predetermined position is also a telephoto end, as claimed.

13. For **Claim 5** (please see claim objection above), Sakata discloses, as shown in figures 1 – 3, an optical apparatus (10) comprising: a first focus lens unit (11) which is manually operated; a second focus lens unit (13) which is driven under auto focusing control; a magnification-varying

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lens unit (12); and the drive control apparatus (see figure 1) according to claim 1 (see rejection of Claim 1 above for details).

14. As for **Claim 6**, Sakata discloses, as shown in figure 1, an image-pickup device (image sensor 15) which photoelectrically converts an object image (see column 3, lines 48 and 49).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakata (US 5,075,713).

17. As for **Claim 4**, Sakata discloses, as shown in figure 1, wherein the controller (microcomputer 19) carries out the auto focusing control based on an AF evaluation value signal (from AF block 18) indicating a focus of an object image generated from an image signal obtained through image taking with the optical apparatus (10; see column 3, lines 47 – 62).

Albeit, Sakata does not specifically state that the AF evaluation value signal indicates a contrast state of the object image. In other words, Sakata does not disclose using the contrast method for performing auto-focus.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of using the contrast method to perform auto-focus are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary

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skill in the art to have used the contrast method to perform auto-focus in the drive control apparatus of Sakata for the advantages of: *reducing cost by not providing a range-finding device and performing through-the-lens focusing and reducing cost by not providing an additional line-type image sensor.*

Conclusion

18. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vivek Srivastava can be reached on 571.272.7304. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin Misleh
Examiner, GAU 2622
May 9, 2007